Amendment to the Claims:

1. (Currently Amended) ~~A device~~ An optical switching system for ~~transmitting~~ directing the path of optical signals, ~~said device~~ comprising:

a substrate including a ~~channel formed between an optical input and an optical output, the channel confining said optical signals to a predetermined path~~ plurality of channels, wherein each channel includes an optical transmission path between an optical input and an optical output, the optical transmission path being enclosed by a wall;

a reflecting structure formed within the wall of the channel as the optical input to the channel, wherein the reflecting structure has a first position parallel to the wall of the channel to form a portion of the enclosure the optical transmission path, the reflecting structure being cantilevered to rotate outward away from the channel to a second position, the cantilever operation being controlled by an electrical signal to move the reflecting structure to the first position or second position, the reflecting structure being latched in place by a magnetic force upon removal of the electrical signal; and

an optical path providing an optical signal incident to the reflecting structure which when rotated outward away from the channel provides an entrance for optical signal into the channel ~~a control device positioned in the channel and coupled to the substrate, the control device directing said optical signals substantially parallel to the substrate between said optical input and said optical output, and the control device including at least one mirror element having a cantilever~~.

2. (Currently Amended) The ~~device~~ optical switching system of claim 1, wherein the reflecting structure includes a mirror to reflect the optical signal ~~said at least one mirror element is configured to reflect said optical signals within said device~~.

3. (Currently Amended) The ~~device~~ optical switching system of claim 2, wherein ~~each of said cantilevers~~ the cantilever has a magnetically sensitive portion and a reflective portion.

4. (Currently Amended) The ~~device~~ optical switching system of claim 1, wherein ~~said~~ the cantilever switches to the first position and the second position in response to an electromagnetic force ~~is configured to be switched between a first state and a second state by one of a plurality of electromagnetic signals~~.

5-6. (Canceled)

7. (Currently Amended) The ~~device~~ optical switching system of claim ~~5~~ 1, wherein the cantilever switches to the first position and the second position in response to an electrostatic force ~~said plurality of electromagnetic signals comprise electrostatic signals generated by a plurality of electrodes~~.

8. (Currently Amended) The ~~device~~ optical switching system of claim 1, wherein ~~said~~ the channel ~~comprises at least one~~ has a reflective wall.

9. (Currently Amended) The ~~device~~ optical switching system of claim 8, wherein ~~said~~ the reflective wall comprises one of the group consisting of aluminum, gold, silver and chromium.

10-13. (Canceled)

14. (Currently Amended) A method of directing optical signals through an optical switching system, comprising:

forming a plurality of channels through a substrate, wherein each channel includes an optical transmission path between an optical input and an optical output, the optical transmission path being enclosed by a wall ~~channels between optical inputs and optical outputs of a substrate~~;

~~conducting an optical signal substantially parallel to the substrate within at least one of the channels between a first one of the optical inputs and at least one of the optical outputs;~~

forming a reflecting structure within the wall of the channel as the optical input to the channel, wherein the reflecting structure has a first position parallel to the wall of the channel to form a portion of the enclosure the optical transmission path, the reflecting structure being cantilevered to rotate outward away from the channel to a second position, the cantilever operation being controlled by an electrical signal to move the reflecting structure to the first position or second position, the reflecting structure being latched in place by a magnetic force upon removal of the electrical signal ~~reflective portion on a switching element that is located within the at least one of the channels and that is coupled to the substrate, the switching element comprising a cantilever~~; and

providing an optical signal incident to the reflecting structure which when rotated outward away from the channel provides an entrance for the optical signal into the channel ~~switching said cantilever such that said reflective portion is placed in the path of said optical signal when said optical signal is desired at a first one of the optical outputs and such that said reflective portion is placed out of the path of said optical signal when said optical signal is desired at a second one of the optical outputs~~.

15. (Currently Amended) The method of claim 14, wherein ~~said channels comprise~~ the plurality of channels each have a reflective wall.

16. (Currently Amended) The method of claim 15, wherein ~~said conducting step comprises directing said optical signal away from said reflective wall with a channel mirror~~ the reflective wall comprises one of the group consisting of aluminum, gold, silver and chromium.

17. (Currently Amended) The method of claim ~~15~~ 14, wherein ~~said the cantilever is configured to be switched by one of a plurality of electromagnetic signals~~ the cantilever switches to the first position and the second position in response to an electrostatic force.

18. (Currently Amended) The method of claim ~~17~~ 14, wherein ~~said electromagnetic signals produce a magnetic torque in said cantilever~~ the cantilever switches to the first position and the second position in response to an electromagnetic force.

19-24. (Canceled)

25. (New) An optical switching system for directing the path of optical signals, comprising:

a substrate including a plurality of channels, wherein each channel includes an optical transmission path between an optical input and an optical output, the optical transmission path being enclosed by a wall;

a mirror formed within the wall of the channel as the optical input to the channel, wherein the mirror is cantilevered to rotate outward away from the channel, the cantilever operation being controlled by an electrical signal to move the reflecting structure to the first position or second position, the mirror being latched in place by a magnetic force upon removal of the electrical signal; and

an optical path providing an optical signal incident to the mirror which when rotated outward away from the channel provides an entrance for the optical signal into the channel.

26. (New) The optical switching system of claim 25, wherein the cantilever switches to the first position and the second position in response to an electromagnetic force.

27. (New) The optical switching system of claim 25, wherein the cantilever switches to the first position and the second position in response to an electrostatic force.

28. (New) The optical switching system of claim 25, wherein the channel has a reflective wall.

29. (New) The optical switching system of claim 28, wherein the reflective wall comprises one of the group consisting of aluminum, gold, silver and chromium.

30. (New) An optical transmission system, comprising:

a substrate including a channel for propagating an optical signal along an optical transmission path enclosed by a wall; and

a cantilevered reflecting structure formed within the wall of the channel as the optical input to the channel, wherein the cantilevered reflecting structure rotates outward away from the channel to receive the optical signal.

31. (New) The optical transmission system of claim 30, wherein the cantilevered reflecting structure is controlled by an electrical signal to move the reflecting structure to the first position or second position, the reflecting structure being latched in place by a magnetic force upon removal of the electrical signal.

32. (New) The optical transmission system of claim 30, wherein the cantilevered reflecting structure switches to the first position and the second position in response to an electromagnetic force.

33. (New) The optical transmission system of claim 30, wherein the cantilevered reflecting structure switches to the first position and the second position in response to an electrostatic force.